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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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09/742,751

12/20/2000

Tatsuya Anma

SIMTEK5685

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07/10/2006

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EXAMINER

GONZALEZ, JULIO C

ART UNIT

PAPER NUMBER

2834

DATE MAILED: 07/10/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/742,751	Applicant(s) ANMA ET AL.	
	Examiner Julio C. Gonzalez	Art Unit 2834	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,3 and 4 is/are pending in the application.
 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1,3 and 4 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date ____. | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

This Office Action is in response to the Incoming Letter on 03/14/06.

Prosecution is being reopened. This Office Action is non-final.

Drawings

1. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the 120 degree to 140 degree electrical angle of the magnets set to the rotational axis and the non-magnetized areas between the magnets as disclosed in claim 1 must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the

several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR

1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

2. The drawings are objected to under 37 CFR 1.83(a) because they fail to show the protective coating 25 as described in the specification. Any structural detail that is essential for a proper understanding of the disclosed invention should be shown in the drawing. MPEP § 608.02(d). Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate

changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claims 1, 3, 4 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 1, what is meant by the magnets having "alternating pluralities"? What are the pluralities, the poles? The spaces? From the claims, it may seem like if the

space is having a 120 to 140 degree separation or are the magnets having the degree of separation?

What is considered "relatively" rotating? Almost moving?

In order to advance prosecution in the merits, the Prior Art will be applied as best understood by the examiner.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claim 1 is rejected under 35 U.S.C. 103(a) as being unpatentable under Miyao et al (US 4,739,203) in view of Kinoshita (US 6,323,572) and the Modern Dictionary of Electronics.

Miyao et al discloses permanent magnets 1, 2, armature winding 27 (see figures 4, 8, 17) and that the magnetic poles of the magnets have an electrical angle of 120 degrees (column 2, lines 1-4).

However, Miyao does not disclose having non-magnetized areas between the magnets.

On the other hand, Kinoshita discloses for the purpose of improving the performance of motor and generators, a non-magnetized area 16 between the magnets (see figures 5A, 2B).

The Modern Dictionary of Electronics is only being cited for explaining the basis definition of an electrical angle, which is *a quantity that specifies a particular instant a cycle of alternating current* and further defines that *a cycle is considered to be 360 degrees, half cycle 180 degrees and quarter cycle 90 degrees* (see page 234).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to design a rotating machine as disclosed by Miyao and to modify the invention by placing non-magnetized areas between the magnets for the purpose of improving the performance of motor and generators as disclosed by Kinoshita and to use in the rejection a dictionary, in order to define what is an electrical angle, as cited by The Modern Dictionary of Electronics.

7. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Miyao and Kinoshita and the Modern Dictionary of Electronics as applied to claim 1 above, and further in view of Tajima et al (US Patent 6,396,183).

The combined rotating machine discloses all of the elements above.

However, combined rotating machine does not disclose having the coils fixed against rotation.

On the other hand, Tajima et al discloses for the purpose of providing an electric machine with small cogging torque, a stator 22 with fixed windings and rotating magnets (see figure 2).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to design the combined rotating machine as disclosed above and to modify the invention by making the magnets rotate for the purpose of providing an electric machine with small cogging torque as disclosed by Tajima et al.

8. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Miyao and Kinoshita and the Modern Dictionary of Electronics as applied to claim 1 above, and further in view of Tajima et al (US 4,672,253).

The combined rotating machine discloses all of the elements above.

However, combined rotating machine does not disclose the electrical machine to be a generator.

On the other hand, Tajima et al discloses for the purpose of reducing cogging torque, an electrical machine that can function as a motor or a generator (see abstract).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to design the combined rotating machine as disclosed above and to modify the invention by making the electrical machine function as a generator for the purpose of reducing cogging torque as disclosed by Tajima et al.

Response to Arguments

9. Applicant's arguments with respect to claims 1, 3 and 4 have been considered but are moot in view of the citing of the Modern Dictionary of Electronic for only explaining the definition of an electrical angle.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Julio C. Gonzalez whose telephone number is 571-272-2024. The examiner can normally be reached on M-F (8AM-5PM).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Darren Schuberg can be reached on 571-272-2044.

The fax phone numbers for the organization where this application or proceeding is assigned are (571) 273-8300 for regular communications and (571) 273-8300 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.

Jcg

Julio Gonzalez
JULIO GONZALEZ
PRIMARY EXAMINER

June 27, 2006

DS
DARREN SCHUBERG
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